

1. General Aspects

The work of the Technical Committee for Metrology in Chemistry, TC-MC, continues in its well-established form. The TC-MC members are actively participating in the European Metrology Research Programme (EMRP).

The fourth meeting of EURAMET TC-MC took place in Helsinki, Finland from 01 - 04 February 2011. All Sub-Committees had separate meetings on the first two days of the conference and a TC-MC plenary meeting was held on 03 - 04 February 2011. 71 representatives from 35 institutions and 31 countries participated in these meetings located at the site of the Finnish Meteorological Institute. An extra day at 31 January 2011 was reserved for annual meetings of iMERA+ and EMRP projects. Running EURAMET projects, iMERA-Plus projects, new EMRP projects and also proposals for upcoming EMRP calls were discussed in detail.

Dr. Michela Sega (INRIM) was nominated as new chairperson of EURAMET TC-MC and her mandate started in June 2011. She replaced Dr. Bernd Güttler (PTB), who chaired the TC-MC for the previous 4 years.

Dr. Francesca Durbiano (INRIM) was nominated as the new convenor of the Sub-Committee for Electrochemistry in the plenary meeting. She replaced Petra Spitzer (PTB), who had acted as the convenor of this SC for four years.

Dr. Hugo Ent (VSL) was nominated convenor of the Sub-Committee for Gas Analysis (SC-GA) to replace Dr. Rob Wessel of the same institute, who had left VSL by the 1st October 2011, before finishing his mandate. Hugo Ent's nomination has the purpose of carrying out the preparation of the 2012 SC-GA meeting and assuring continuity in the SC-GA work.

Bertil Magnusson (SP) was formally appointed during the plenary meeting as the EURAMET TC-MC representative in the EURACHEM working group "Measurement Uncertainty and Traceability".

2. Projects

There are currently 10 active projects. Detailed information on the projects is given in the TC-MC project webpage.

Year	project started	completed projects
2003	5	4
2004	4	3
2005	5	1
2006	8	3
2007	4	2
2008	4	1
2009	3	3
2010	3	5
2011	4	8

3. Comparisons

5 EUROMET.QM Supplementary Comparisons and 8 Key Comparisons are registered in the BIPM KCDB:

EUROMET.QM-K1.c: completed
EUROMET.QM-K3: completed
EUROMET.QM-K4: completed
EUROMET.QM-K4.1: completed
EUROMET.QM-K17: completed
EUROMET.QM-S1: completed
EUROMET.QM-S2: completed
EUROMET.QM-S3: completed
EURAMET.QM-S4: completed

EURAMET.QM-K12: ongoing
EURAMET.QM-S5: ongoing
EURAMET.QM-K16: planned
EURAMET.QM-K26.a: planned

4. CMCs

In 2011, CMC claims of the new cycle, Cycle XII, and of the previous one, Cycle XI underwent to inter-regional review. The definitive EURAMET claims were posted for approval by JCRB on 28th November 2011 and finally published on 4th January 2011.

51 new claims and 248 revised/re-reviewed claims of Cycle XII, submitted by 11 NMIs and designated institutes from 10 countries covering 9 categories (1, 3-5, 8-12), were published in the KCDB.

3 new claims and 65 revised/re-reviewed claims of Cycle XI were published in the KCDB.

EURAMET experts also took part in the interregional review leading to the publication in the KCDB of 179 new claims and 68 revised/re-reviewed claims of both Cycle XI and XII from APMP, AFRIMET and COOMET.

5. Activities of the Sub-Committees

Meetings of all the four TC-MC Sub-Committees were conducted together with the TC-MC plenary meeting in Helsinki 1 – 4 Feb 2011. A review of new claims as well the obligatory re-review of a range of existing claims was carried out under cycle XII of the CMC claim period. Running iMERA-Plus projects, the new EMRP projects and also proposals for upcoming EMRP calls were discussed in detail in all sub-committees.

The CMC process related to Cycle XIII is ongoing and it deals with both with the submission of new claims and the re-review of a range of already existing claims, according to CCQM prescriptions.

6. EMRP

The ongoing European Metrology Research Programme (EMRP) is now a dominant factor in the work and prospect of the Technical Committee for Metrology in Chemistry (TC-MC) of the European Association of National Metrology Institutes EURAMET e.V.. TC-MC is strongly involved in the EMRP process and participates in 7 running projects in the fields of “Health”, “SI and fundamental constants”, and “Energy”.

TC-MC members also engaged in the calls for the Targeted Programmes (TPs) on “Metrology for environment” and “Metrology for industry” conducted in 2010, participating in 6 projects, almost all started in the second half of 2011.

In particular, for the TP “Environment” TC-MC members are involved in the following projects:

- ENV01 - MACPoll “Metrology for chemical pollutants in air”,
- ENV02 - PartEmission “Emerging requirements for measuring pollutants from automotive exhaust emissions”
- ENV05 - Ocean Metrology “Metrology for oceanic salinity and acidity”
- ENV08 - WFDtraceability “Traceable measurements for monitoring critical pollutants under the European Water Framework Directive (WFD-2000/60/EC)”.

An interesting aspect is the successful engagement of TC-MC members also in two projects of the physics-oriented TP “Industry”:

- IND07 - Thin Films “Metrology for the manufacturing of thin films” that tackles, among other things, standards for chemical quality control of solar cells,
- IND15 - SurfChem “Traceable quantitative surface chemical analysis for industrial applications”, which aims at standards for instrument calibration and verification of industry-relevant surface chemical measurements.

Annual meetings of the project T2J10 and ENG09 were carried out on 31 January in Helsinki prior to the TC-MC meeting.

Ideas for research topics for the 2011 calls were discussed in a workshop: "Preparation for the Targeted Programmes "Health II, SI broader scope, New technologies" " organized during the TC-MC meeting in Helsinki. 13 contributions were presented. The presentations can be downloaded from the TC-MC webpage.

Also, Hans Koch, PTB, Facilitator of TP Health II gave an overview of "Recent developments of the TP Health programme" at this occasion.

The participation in the successive call of 2011 was very successful for the TC-MC members who are at engaged in various projects of the three TPs "Health II", "SI broader scope" and "New technologies", that are supposed to start in mid 2012.

7. Meetings

Previous meeting:

- TC-MC annual meeting:

1 to 4 of February 2011 (sub-Committees and TC-MC plenary meeting) in Helsinki, Finland

- EURAMET workshop: "Preparation for the Targeted Programmes "Health II, SI broader scope, New technologies" Helsinki, Finland 2011-02-03 with invited speakers:

Highlights:

Reports on:

- Activities of CCQM and JCTLM (Joint Committee on Traceability in Laboratory Medicine)

by Bob Kaarls, President of CCQM

- BIPM activities in metrology in chemistry and biosciences

by Robert Wielgosz, BIPM, Head of Chemistry Section

- Recent developments of the TP Health

by Hans Koch, PTB, Facilitator of TP Health II

- EURACHEM activities,

by Bertil Magnusson, SP, EURACHEM vice-chair.

Next meeting:

- TC-MC annual meeting:

30 January to 3 of February 2012 (sub-Committees and TC-MC plenary meeting) in Biarritz, France

- EURAMET workshop: "Mini workshop on iMERA plus ended JRPs"

- EURAMET workshop: "EMRP workshop in preparation of the 2012 call"

8. Strategic planning

Discussion about participation in future EMRP TPs

Discussion about CMC activities.

9. Outlook for 2012

Roadmap update for EMPIR

Discussion for the participation in future EMRP activities

Activities related to CMC submission and revision.

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